

**Amendments to the Specification:**

Please replace paragraph [0012] with the following replacement paragraph:

[0012] In US Patent 6,366,393, which is also incorporated by reference in its entirety as in the document previously mentioned, a control unit for the gain of an optical amplifier is presented which opts for a linear approach for the required pump power as a function of the signal input power at the optical amplifier. The error implied in this approach is correct by means of a correction loop which is located after the amplifier and contains a microprocessor. This correction does not include wavelength dependency, making the method slow and imprecise.